POPULAPERAN ADMINISTRATIVE ALGUMO HIGH NUMBER TWO MAN OF CASTER

June 19,1992

Mr. David C. Croxton Environmental Scientist Region 10, Environmental Protection Agency HW - 106 1200 Sixth Avenue Seattle, WA 98101

Re: Terminal 91 - EPA Section 3007 Request - Port of Seattle

Dear Mr. Croxton:

Attached is the final bibliography prepared by our consultants, the draft copy of which you recieved at our meeting on Monday. The documents of most interest to your current 3008H investigation are those under the headings:

City Ice Geotechnical Investigation PANOCO Line breaks/...
Burlington Lease Area.

We will put the highest priority on supplying you this information first. You can expect to have the first delivery of information by the end of next week, Friday, June 26.

Please feel free to call me at 728-3192, if you have any additional questions or comments.

Sincerely,

Douglas A. Hotchkiss

Environmental Management Specialist

0848V DAH



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BIBLIOGRAPHY

City Ice Geotechnical Investigation

GeoEngineers, Inc. 1987. Report of Geotechnical Engineering Services, Proposed Facilities Expansion, Seattle, Washington. Report prepared for City Ice and Cold Storage Company dated 10 February 1987. (Reported hydrocarbon odor in soil borings.)

GeoEngineers, Inc. 1987. Summary Letter, Monitoring Well Installation, Proposed Facility Expansion. Letter report prepared for City Ice and Cold Storage Company dated 26 June 1987. (Report on installation of monitoring well MW-1.)

GeoEngineers, Inc. 1987. Summary of Supplemental Monitoring Well Measurements, Proposed Facility Expansion. Letter report prepared for City Ice and Cold Storage Company dated 31 August 1987. (Laboratory analytical results for a groundwater sample from monitoring well MW-1.)

GeoEngineers, Inc. 1989. Report, Geotechnical Engineering Services, Proposed Cold Storage Warehouse and Fish Processing Facility, Pier 91, Seattle, Washington. Report prepared for City Ice Cold Storage Company dated 2 November 1989. (Geotechnical information for soil borings.)

Port of Seattle files:

 Analytical laboratory results for a gas and groundwater sample from the City Ice project.

PANOCO Line Breaks/Oil Seepage into Short Fill Pond/Other Data

City of Seattle Fire Department. 1989. Code Violation Report. 1515 West Garfield, Pier 91 - Building 19, 1515 West Garfield, Pacific Northern Oil. 6 September 1989. CPO E20/B14.

City of Seattle Fire Department. 1989. Inspector's Fire Hazard Report. 1515 West Garfield, Pier 91 - Building 19, Pacific Northern Oil. 23 August 1989. CPO E20/A7.

City of Seattle Fire Department. 1987. Code Violation Report. 1515 West Garfield, Pacific Northern Oil. 30 September 1987. CPO E20/B3.

Converse GES. 1989. Preliminary Hydrogeologic Assessment Report, Terminal 91 Facility. Report prepared for Pacific Northern Oil dated 22 November 1989. [Report on groundwater sampling of four monitoring wells (MW-2, MW-3, MW-6, and MW-11) and water level measurements for evaluating tidal influence.]

PANOCO Line Breaks/Oil Seepage into Short Fill Pond/Other Data (continued)

Converse GES. 1990. Interim Product Extraction System Remedial Action Plan, Terminal 91. Report prepared for Pacific Northern Oil dated 26 July 1990. (Description of extraction system in recovery well EW-1, results of pumping test data, groundwater elevation data, and analytical laboratory results from a groundwater sample.)

Converse GES. 1990. Phase I Remedial Investigation, Terminal 91 Facility. Report prepared for Pacific Northern Oil dated 5 July 1990. (Report on the installation of four monitoring wells and collection of soil and groundwater samples, including laboratory analyses.)

Converse Consultants NW. 1990. Site Investigation and Remedial Cleanup Action, Bunker "C" Fuel Oil Line Break, Pacific Northern Oil Pier 91. Report prepared for Pacific Northern Oil dated 5 November 1990. (Reported soil remediation and confirmation sampling.)

Converse Consultants NW. 1991. Site Investigation and Remedial Cleanup Action, Bunker "C" Fuel Oil Line Break, Pacific Northern Oil Pier 91. Report prepared for Pacific Northern Oil dated 24 September 1991. (Reported soil remediation and confirmation sampling.)

Converse Consultants NW. 1992. Annual Progress Report, Interim Liquid Hydrocarbon Recovery System, Terminal 91. Report prepared for Pacific Northern Oil dated 5 March 1992. (Progress report on operation of product recovery system in recovery well EW-1.)

Hart Crowser, Inc. 1989. Oil Seepage Investigation, Short Fill Pond, Terminal 91. Report prepared for Port of Seattle dated 11 September 1989. [Results of soil samples from 11 soil borings and inspection for free product in four monitoring wells (MW-2, MW-3, MW-6, and MW-11).]

Sediments

Brown and Caldwell. 1986. Galer Street Entry Shoreline Intertidal Mitigation Site Excavation--Dredged Material Site Analysis. Report prepared for Port of Seattle dated 23 January 1986. (Collection and laboratory analysis of sediments from Terminal 91 to evaluate their suitability for open-water disposal. These sediments have been removed and were placed in the short fill.)

Sediments (continued)

Port of Seattle files:

Laboratory analysis reports from the Terminal 91 sediment sampling.

Short Fill

Converse Consultants NW. 1992 (in progress; expected 1 July 1992). Terminal 91 Short Fill Monitoring Program. Report in preparation for Port of Seattle.

Hart Crowser and Associates, Inc. 1984. Geotechnical Engineering Study, Terminal 91 Redevelopment Project, Short Fill, Report prepared for Port of Seattle.

Hart Crowser and Associates, Inc. 1985. Modeling Assistance, Terminal 91, Seattle, Washington. Report prepared for Port of Seattle dated February 1985.

Hart Crowser and Associates, Inc. 1985. Hydraulic and Contaminant Modeling, Terminal 91. Report prepared for Port of Seattle dated 9 August 1985. (Description of original model of hydraulic flow and contaminant transport model for short fill.)

Hart Crowser and Associates, Inc. 1988. Data Report, Monitoring Well Installation and Physical Characterization of Berm-Fill Material, Terminal 91. Report prepared for Port of Seattle dated 21 October 1988. [Installation of 14 monitoring wells (W-2, W-3, W-4A, W-4B, W-4C, W-5A, W-5B, W-5C, W-6, W-7A, W-7B, W-7C, W-9, and W-10); and performance of aquifer tests (falling head and rising head hydraulic conductivity tests, i.e. slug tests).]

Pacific Groundwater Group and Converse Consultants NW. 1990. Revised Hydraulic and Transport Model, Terminal 91 Short Fill. Report prepared for Port of Seattle dated 12 December 1990. (Calibration of numerical hydraulic flow model and analytical transport model for short fill.)

URS Engineers. 1985. Progress Report, Terminal 91 Contained Fill Project. Report prepared for Port of Seattle dated 12 March 1985.

Port of Seattle files:

 Analytical laboratory reports for samples of dredged material placed in short fill.

Regulatory correspondence and permits relating to short fill:

- Dredge and fill permit (071-QYB-2-009711) dated 29 October 1988, issued to Port of Seattle by U.S. Department of the Army, Seattle District Corps of Engineers. Accompanying documentation includes:
 - Washington Department of Ecology Water Quality Certification
 - Washington Department of Fisheries Hydraulic Project Approval
 - Environmental Assessment and Finding of No Significant Impact
 - Criteria, Thresholds, Monitoring, and Remedial Action Plan; and letter of approval of the plan from U.S. Environmental Protection Agency (EPA) Region 10.

Tanks

ERM Northwest, Inc. 1990. Preliminary Underground Tank Assessment. Report prepared for Port of Seattle dated September 1990. (Section 2 includes results of subsurface investigation in the vicinity of Tanks 91A, 91B, 91C, and 91K; and a summary of previous findings from the vicinity of Tanks 91D, 91E, 91F, 91G, and 91N.)

Harding Lawson Associates. 1990. Underground Storage Tank Investigation in the Vicinity of the City Ice Building, Terminal 91, for the Port of Seattle. Report dated 18 June 1990. (Results of a soil and groundwater investigation in the vicinity of Tank 91N.)

Port of Seattle archives--historical site plans for Terminal 91, indicating locations of tanks and former tanks and other features. (A gas and oil tank farm was formerly located west of the present Burlington Pier 91 facility. Archive maps show the tank farm was in existence from approximately 1932 to 1943. A large underground concrete oil tank has been present on Pier 90, at least since 1929. The concrete oil tank is no longer in use.)

Port of Seattle files:

- Notes regarding testing and removal of underground storage tanks (Tanks 91D, 91E, 91F, 91G, 91I, 91K, and 91O)
- Analytical laboratory results for soil samples near Tanks 91D, 91F, 91G, and 91N
- Notes regarding UST removals/replacement at T-91 (Tanks 91A, 91B, 91C, 91D, 91E, 91F, 91G, and 91K)

- Record of closure of underground storage tank (Tank 91I)
- Record of closure of underground storage tank (Tank 91N)
- Port of Seattle working drawings (marine facilities maps indicating tank locations).

SCS Engineers. 1989. Underground Storage Tank Investigation, Terminal 91, Seattle, Washington. Report prepared for Port of Seattle dated 14 August 1989. (subsurface investigation in the vicinity of Tank T911.)

Burlington Lease Area

Hart Crowser & Associates, Inc. 1981. Subsurface Explorations and Testing Related to Possible Oil Contamination, Terminal 91. Letter to Port of Seattle dated 21 August 1981. (Installation and sampling of soil and groundwater from wells B101 and B102.)

Documents and correspondence related to Burlington's 3013 and 3008(h) RCRA investigations.

Port of Seattle files:

- Correspondence related to soil samples collected from the Burlington lease area in during a sewer line modification, including laboratory analytical results of the soil sampling
- Correspondence (1974, 1975, and 1980, undated) related to disposal of waste oil and water directly to the ground at the Burlington lease, and other operating practices involving handling of oils at the Burlington operation.

Miscellaneous Data

Port of Seattle archives - drawings dating from 1920s.

Port of Seattle files:

- Correspondence related to an ammonia spill by City Ice on 24 July 1987
- Correspondence related to discharge of oil into Elliott Bay during the placement of dredge material (short fill)

 Correspondence related to cleanup of a spill of PCB-containing transformer oil onto a concrete transformer slab in 1986